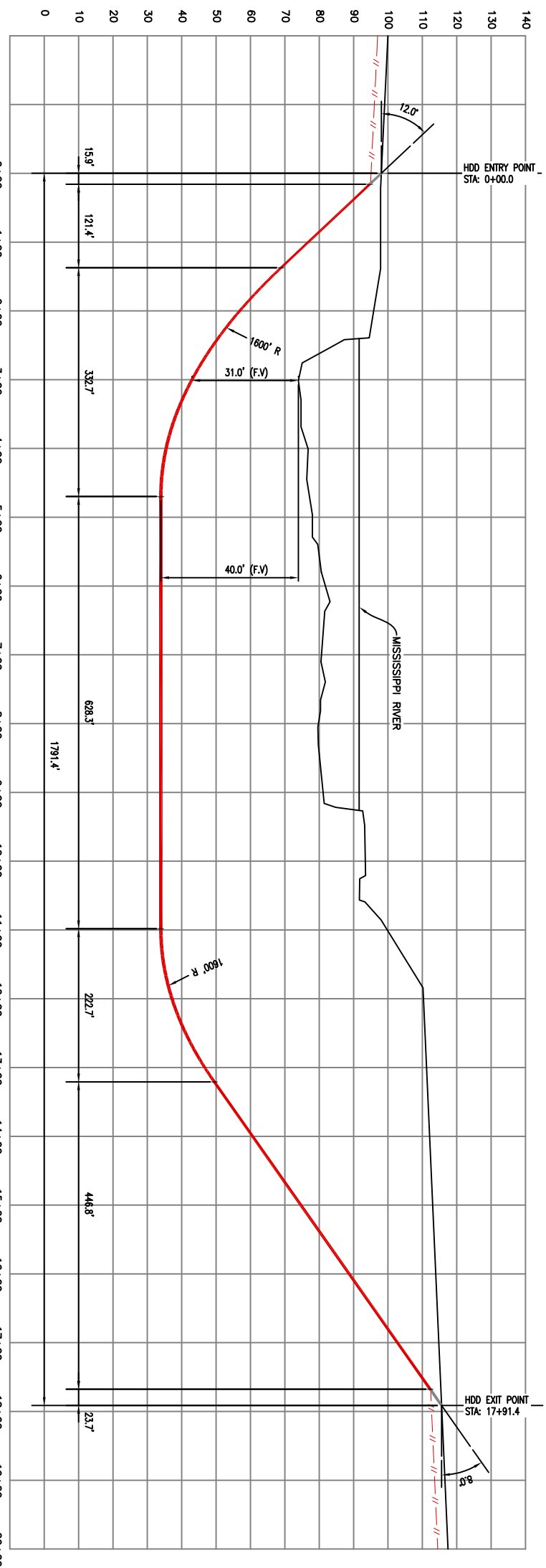


ISSUE FOR PRELIMINARY CONSTRUCTION

PLAN VIEW
SCALE 1\"/>



PROFILE VIEW
SCALE: 1\"/>

BORE PIPE SPEC	
DESCRIPTION	CARRIER PIPE
CONTENTS TO BE HANDLED	CRUDE OIL
OUTSIDE DIAMETER	16,000"
PIPE MATERIAL	CARBON STEEL
SPECIFICATION AND GRADE	API-5L-X80
WALL THICKNESS	0.500"
MAP	1480 PSIG
PRE-INSTALLATION HYDROSTATIC TEST	MIN. 2300 PSIG - 2 HOURS MIN. 1850 PSIG - 8 HOURS
POST-INSTALLATION HYDROSTATIC TEST	MIN. 2200 PSIG - 8 HOURS
NON-DESTRUCTIVE TESTING	100% XRAY
PIPING MATERIAL	
1	EXISTING MAINLINE PIPE, 16,000" O.D. x 0.281" W.T., API-5L-X80 W/ UNKNOWN COATING
2	BORE PIPE, 16,000" O.D. x 0.500" W.T., API-5L-X80 W/ 14 - 16 MILS FBE AND 24 MILS APO COATING.
3	TRANSITION PIPE, 16,000" O.D. 0.500" W.T. WITH ONE END TAPERED TO 0.375" W.T., API-5L-X80 W/ 14 - 16 MILS FBE

NOTES:

- SEE DRAWING KO-XI-XI FOR GENERAL NOTES.
- IN ADDITION TO THE SITE-SPECIFIC INFORMATION PROVIDED IN THIS DRAWING, GENERAL REQUIREMENTS INCLUDED IN PERMITS AND APPROVAL FROM FEDERAL, STATE, AND LOCAL AGENCIES ALSO APPLY.
- CONTRACTOR SHALL NOTIFY THE "ONE CALL" SYSTEM A MINIMUM OF 3 WORKING DAYS PRIOR TO BEGINNING WORK.
- CONTRACTOR TO VERIFY ALL EXISTING AND PROPOSED PIPE PLACEMENT PRIOR TO SUBMITTING BID. SPECIFIC SAFETY PROCEDURES, OBTAINED BY COMPANY, ARE TO BE FOLLOWED AT ALL TIMES.
- ENTRY AND EXIT ANGLES ARE MEASURED FROM HORIZONTAL PLANE.
- PRELIME MARKERS TO BE PLACED AT RIGHT-OF-WAY. ADDITIONAL RELEASABLE PRELIME MARKERS TO BE PLACED INSIDE RIGHT-OF-WAY AS REQUIRED (FIELD DETERMINED).

REV	NO	REVISION	BY	CHK	DATE

THIS DRAWING HAS NOT BEEN REVIEWED BY THE ENGINEER FOR THE PURPOSES OF THE MISSISSIPPI RIVER CROSSING. THE ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE DRAWING AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED HEREIN. THE ENGINEER'S REVIEW IS LIMITED TO THE TECHNICAL ASPECTS OF THE DRAWING AND DOES NOT CONSTITUTE A GUARANTEE OF THE ACCURACY OF THE INFORMATION PROVIDED HEREIN.

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PROJECT NAME
PROJECT LOCATION
PROJECT LOCATION
MISSISSIPPI RIVER CROSSING

OPTION 3

DRAWING NUMBER
KO-CD-XXX

SCALE
AS NOTED

PROJECT NUMBER
10623

DATE
08-24-10

REV
A